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Note: these pages are excerpted from the User's Manual P/N KD4030B-UM-151.

## KD4030B

### DIP Switch Settings and Functions

#### 5.1 DIP Switch SW2

##### 5.1.1 Setting Table

		SW2							
		1	2	3	4	5	6	7	8
		Output format	Terminator	Mode	Beeper	Parity bit		Baud Rate Multiplier	Resolution
Output format	ASCII	ON							
	Binary	OFF							
Terminator	LF only		ON						
	CR+ LF		OFF						
Mode	Check mode			ON					
	Normal			OFF					
Beeper	Enabled				ON				
	Disabled				OFF				
Parity bit	None					OFF	X		
	Odd					ON	OFF		
	Even					ON	ON		
Baud Rate Multiplier	1/64							ON	
	1/16							ON	
Resolution	0.005 inch								ON
	0.1 mm								OFF

**Notes:**

X = may be either on or off

##### 5.1.2 SW2 Function Descriptions

SW2	1 (Output format)	Selects the format of data output by the digitizer; either ASCII format or BINARY format. See section 7.
	2 (Terminator)	Selects either LF or CR+LF as the data terminator in the ASCII output format.
	3 (Mode)	Normally OFF. When ON, sets the digitizer to the interface check mode. SW2-1 must also be ON. See section 10.3 for details.
	4 (Beeper)	Enables or disables the beeper.
	5 and 6 (Parity bit)	The parity bit is for detecting data transmission errors. An odd parity bit ensures an odd total number is 1s. An even parity bit ensures an even total of 1s.
	7 (Baud Rate)	Used together with DIP Switch SW3. See Section 5.2.
	8 (Resolution)	Selects the resolution of data output from the digitizer, permitting the use of either metric or inch units. The metric resolution is 0.1 mm, so

an output of 1000 represents 100 mm. The inch resolution is 0.005 inch, so an output of 1000 represents 5 inches.

## 5.2 DIP Switch SW3

### 5.2.1 Setting Table

	SW2-7 ON (x1/64)				SW2-7 OFF (x1/16)			
	1	2	3	4	1	2	3	4
9600					ON	OFF	ON	
4800					ON	OFF	OFF	
2400	ON	OFF	ON		OFF	ON	ON	
1200	ON	OFF	OFF		OFF	ON	OFF	
600	OFF	ON	ON		OFF	OFF	ON	
300	OFF	ON	OFF		OFF	OFF	OFF	
150	OFF	OFF	ON					

The fourth switch position can be either ON or OFF

### 5.2.2 Functions

<b>SW3</b>	<b>1 to 4 (baud rate)</b>	These switches, together with SW2-7, select the transmission rate between the digitizer and computer in bits per second (bps, or "baud"). Both computer and digitizer should be set to the same rate.
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## 5.3 DIP Switch SW4

This DIP switch can be accessed by removing the protective cover on the bottom panel. It selects the operating mode at power-up and reset and sets the interface parameters other than the baud rate.

### 5.3.1. Setting Table

Function		SW4										
		1	2	3	4	5	6	7	8			
Remote mode		OFF	OFF	OFF	OFF							
Point mode		ON	ON	OFF	OFF							
Switch stream mode	150 data/s	OFF	ON	ON	ON							
	80	OFF	ON	ON	OFF							
	35	OFF	ON	OFF	ON							
	20	OFF	ON	OFF	OFF							
Stream mode	150 data/s	ON	OFF	ON	ON							
	80	ON	OFF	ON	OFF							
	35	ON	OFF	OFF	ON							
	20	ON	OFF	OFF	OFF							
Data character length	7 bits					ON						
	8 bits					OFF						
Stop bit(s)	1 bit					OFF				OFF		
	2 bits					ON				OFF		
Reserved	Always									OFF		

Data transfer rates are for binary format at 9600 baud

### 5.3.2 Functions

SW4	1 to 4 (Power up mode)	Selects the digitizer operating mode at power-up: Point mode, Stream mode, Switch stream mode, etc. After power-up, the mode can be changed by command.
	5 (Data character length)	Selects the data character length
	6 and 7 (Stop bits)	Selects the number of bits transmitted to indicate the end of each data byte
	8	This position is reserved. Please leave it OFF

5.4 Switch Settings When Shipped From the Factory

SW2 (Rear Panel)

BLACK in the lower row indicates OFF

	1	2	3	4	5	6	7	8
OFF								

SW3 (Rear Panel)

	1	2	3	4
OFF				

SW4 (Bottom Panel)

	1	2	3	4	5	6	7	8
OFF								

- (1)

Interface parameters

Baud Rate

Parity bit

Stop bits

Character length

Terminator

9600

None

2

7 bits

CR+LF
- (2)

Digitizer Functions

Data format

Inch/metric

Beeper

Normal/Check mode

Mode

ASCII

Metric

On

Normal

Remote

